1.0 INTRODUCTION

1.1 The Watershed Management Initiative

The Watershed Management Initiative (WMI) is an integrated planning process designed to more effectively direct State and Federal funds to the highest priority water quality activities. Its distinguishing feature is the integration of the various regional, State, and United States Environmental Protection Agency (USEPA) programs on a watershed basis. The participating agencies in the WMI are the nine Regional Water Quality Control Boards (Regional Boards), the State Water Quality Control Board (State Board), and USEPA.

Implementation of the WMI is described in a document called the "*Integrated Plan for Implementation of the WMI*"(Integrated Plan), which is updated annually. The Integrated Plan is composed of individual chapters written by each of the nine Regional Boards, as well as chapters prepared by the State Board and USEPA.

The Santa Ana Chapter of the WMI Integrated Plan

This document is the Santa Ana Region's chapter of the Integrated Plan. It describes the Santa Ana Region's approach to watershed planning and serves as a tool for making budgetary decisions. The Santa Ana Region's chapter implements the WMI by:

(1) Compiling existing water quality programs organized on a watershed basis and discussing *watershed-specific* priorities, current funded activities, and un-funded priority activities (**Section 3**).
(2) Describing *Region-wide* water quality programs, including short-term and long-term goals and resource needs (**Section 4**).
(3) Providing detailed watershed program schedules and budgets (**Appendices**).

The remainder of this introduction provides a brief description of the Santa Ana Region (**Section 1.2**), an overview of Regional Board activities (**Section 1.3**), and a brief description of the designated watershed management areas in the Santa Ana Region (**Section 1.4**).

1.2 The Santa Ana Region

The Santa Ana Region covers an area of approximately 2,800 square miles in Southern California. The Santa Ana River Basin makes up most of the Region (**Figure 1-1**). While it is the smallest of the nine water quality control regions in the State, the Region contains a wide variety of water resources, including pristine mountain streams and lakes, coastal estuaries and beaches, and effluent-dominated rivers.

Boundaries:
The San Gabriel, San Bernardino, and San Jacinto Mountains form the northern, northeastern, and eastern boundaries of the Region. The western boundary of the Region conforms roughly to the Los Angeles County line. Portions of the Santa Ana Mountains and other hills form the southern boundary of the Region. The Region includes ocean coastal waters, roughly from Seal Beach to Muddy Canyon, just north of Laguna Beach. The two coastal embayments in the Region are Newport Bay and Anaheim Bay/Huntington Harbour.

Water Bodies:
The Santa Ana Region contains six types of waterbodies for which beneficial uses have been identified (Water Quality Control Plan for the Santa Ana River Basin ["Basin Plan"] 1995).

Ocean Waters. The Pacific Ocean coast between Muddy Canyon in the south and the San Gabriel River in the north is included within the Santa Ana Region. Two areas in the near-shore zone have been designated as Areas of Special Biological Significance (ASBS). These are the Irvine Coast Marine Life Refuge Area and the Newport Beach Marine Life Refuge Area.

Bays, Estuaries, and Tidal Prisms. Eleven bays, estuaries, and tidal prisms are recognized along the coast. The largest of these are Anaheim Bay and Newport Bay. The Bolsa Chica Ecological Reserve and the Seal Beach National Wildlife Refuge are included in this category.

Inland Surface Streams. The two major surface streams in the Region are the Santa Ana and San Jacinto Rivers. The Santa Ana River and its tributaries drain the southern portions of the San Gabriel and San Bernardino Mountains.

Lakes and Reservoirs. Seventeen lakes and reservoirs are located within the Region. Twelve of these occur within the Santa Ana River watershed, while the remaining five, including the largest natural freshwater lake in Southern California (Lake Elsinore), are found within the watershed of the San Jacinto River.

Wetlands. The Santa Ana Region has numerous wetlands within its boundaries. Although the Basin Plan specifically identifies ten of the larger wetlands, all wetlands are protected.

Groundwater. Forty-four groundwater basins have been delineated within the Santa Ana Region. Groundwater constitutes a large portion of the water supply for many municipalities in the Region.

1.3 Overview of Regional Board Activities

The Santa Ana Regional Board manages a variety of programs to protect water quality and beneficial uses. Eight of the Regional Board's water quality protection activities are currently incorporated into the WMI. These are:

1. Watershed Management (Coordination)
2. Water Quality Standards/Basin Planning
3. Monitoring and Assessment
4. Non-point Source (NPS)
5. Total Maximum Daily Loads (TMDLs)
6. Core Regulatory (NPDES, Waste Discharge Requirements [WDRs], and Chapter 15 WDRs)
7. Wetlands Protection/Regulation
8. Groundwater Protection/Clean-up

The eight programs are discussed on a WMA-specific basis in **Section 3**. Region-wide activities for each program are discussed in **Section 4**.

Total Maximum Daily Loads (TMDLs)
The Basin Plan for the Santa Ana Region specifies water quality objectives for each water body according to water type. The water quality objectives are intended to provide reasonable protection for the beneficial uses listed for each water body (Basin Plan, 1995).

In 1998, the Regional Board designated a list of 26 waterbodies for which water quality standards (beneficial uses and/or water quality objectives) were not being attained. The list also includes a description of the pollutant(s) causing impairment. This list, developed in accordance with Section 303(d) of the Clean Water Act (CWA), is referred to as the "303(d) list" and is updated every two years. *On October 26, 2001, a proposed, revised 303(d) list was presented to the Regional Board for submittal to the State Board The staff report presented at the Board meeting is available at the Regional Board website: http://www.swrcb.ca.gov/~rwqcb8/pdf/10-26-01/9.pdf . The State Board will compile and approve a statewide 303(d) list for submittal to the USEPA by October 2002.*

The Regional Board is required to establish numeric water quality targets for each waterbody on the 303(d) list. These targets are referred to as Total Maximum Daily Loads (TMDLs). The TMDL is the maximum load of a pollutant that can be discharged into a waterbody without impairing water quality standards. TMDLs are discussed further in **Sections 3 and 4**.

1.4 Watershed Management Areas

The Santa Ana Region is too large and complex to be managed as a single watershed, and it has therefore been divided into ten Watershed Management Areas (WMAs). The ten WMAs are:

1) Chino Basin
2) Newport Bay
3) Lake Elsinore, San Jacinto River
4) Big Bear Area
5) Anaheim Bay, Huntington Harbour, Bolsa Chica
6) Upper Santa Ana River
7) Middle Santa Ana River
8) Lower Santa Ana River
9) Newport Coast
10) Coyote Creek & Carbon Creek

These WMAs are largely based on the component sub-watersheds of the Santa Ana Region, although the Chino Basin WMA has been defined separately on the basis of the underlying groundwater basin. The WMAs are being used as the basis for initiating watershed planning and directing resources.

The ten WMAs in the Santa Ana Region are delineated in **Figure 1-1** and each WMA is described in detail in **Section 3**.

The water quality issues that have been identified for each WMA and priority Regional Board activities are listed in **Table 1-1**.

Table 1-1: Priority Activities in Watershed Management Areas

Watershed Management Area	Primary Water Quality Concerns	Priority Regional Board Activities
Chino Basin	Groundwater: high TDS and N levels, solvent plume	Participation in the Nitrogen/TDS task force, implementation of the dairy regulatory program, and TMDL development for nutrients, pathogens, and suspended solids.
Newport Bay	Excess algal blooms (nutrients), aquatic life toxicity, bacterial quality; stream channel erosion and sedimentation in Newport Bay, wetland protection	Implementation of sediment, nutrient, and fecal coliform TMDLs, and development of TMDLs for diazinon and chlorpyrifos, selenium, and other toxic constituents (metals, pesticides and priority organics). Participation on Serrano Creek restoration projects.
Lake Elsinore, San Jacinto	Summer lake algal blooms and fish kills, bacterial quality, lake water level management, nitrogen and TDS in groundwater, impacts from confined animal feeding operations	Development of TMDLs for nutrients, siltation, pathogens, and unknown toxicity. Implementation of the watershed-wide NPDES permit (Order No, 01-34) for the San Jacinto watershed. Participation with local agencies on management projects for Lake Elsinore
Anaheim Bay, Huntington Harbour, Bolsa Chica	Toxic constituents (metals, pesticides, and petroleum products), wetland protection and restoration, bacterial quality	Water quality assessment monitoring in Anaheim Bay and Huntington Harbour, and at candidate toxic hot spot sites. Development and implementation of waste discharge requirements for sewage collection agencies to prevent system overflows and protect of beach water quality.
Big Bear Area	Excess sediments and nutrients, toxic constituents (metals), protection of endangered plant and animal species	Development of TMDLs for nutrients, metals, siltation, and pathogens
Upper Santa Ana River	Wastewater disposal problems (septic tanks)	Enforcement activities related to septic tank system prohibitions
Middle Santa Ana River	Wastewater reclamation (TDS and nitrogen issues), groundwater recharge and water level management, invasive plant eradication	Santa Ana River monitoring at Prado dam. Participation in the Nitrogen/TDS task force. (See Chino Basin for Santa Ana River Reach 3 TMDL activities)
Lower Santa Ana River	Bacterial quality, TDS and nitrogen in groundwater, coastal wetlands protection, wastewater reclamation, organic contamination	Participation in the Nitrogen/TDS task force. Review of ocean monitoring programs in conjunction with the Orange County Sanitation District waste discharge requirements
Newport Coast	Discharge of wastes to Areas of Special Biological Significance (ASBS)	Prevention of discharge to ASBS sites through monitoring, implementation of Cease and Desist order. Manage contract for restoration of Buck Gully.
Coyote Creek, Carbon Creek	Nitrogen impairment, channel erosion and aquatic habitat degradation	Development of watershed management plan

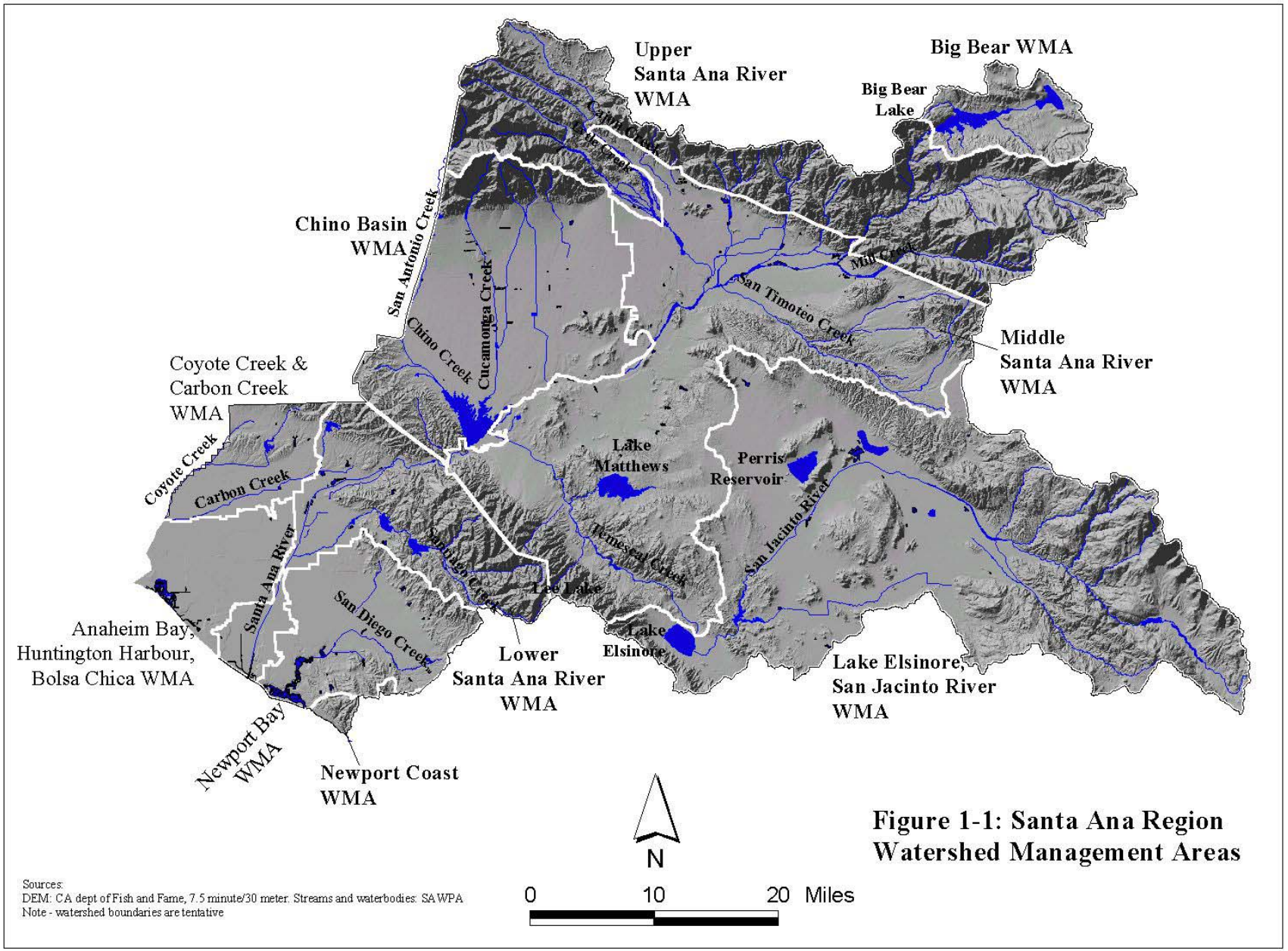

Figure 1-1: Santa Ana Region Watershed Management Areas